



SEQUENCE LISTING

<110> Zhang, Xianghua
Konigsberg, Paula

<120> Specific Inhibition of Allorejection

<130> A-72186/TAL/DCF (471702-00005)

<140> US 10/804,762

<141> 2004-03-19

<150> US 60/456,378

<151> 2003-03-19

<160> 32

<170> PatentIn version 3.2

<210> 1

<211> 235

<212> PRT

<213> Homo sapiens

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Trp Asn Leu Gly Glu Thr Val Glu Leu Lys Cys Gln Val Leu Leu Ser
35 40 45

Asn Pro Thr Ser Gly Cys Ser Trp Leu Phe Gln Pro Arg Gly Ala Ala
50 55 60

Ala Ser Pro Thr Phe Leu Leu Tyr Leu Ser Gln Asn Lys Pro Lys Ala
65 70 75 80

Ala Glu Gly Leu Asp Thr Gln Arg Phe Ser Gly Lys Arg Leu Gly Asp
85 90 95

Thr Phe Val Leu Thr Leu Ser Asp Phe Arg Arg Glu Asn Glu Gly Tyr
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Tyr Phe Cys Ser Ala Leu Ser Asn Ser Ile Met Tyr Phe Ser His Phe
115 120 125

Val Pro Val Phe Leu Pro Ala Lys Pro Thr Thr Thr Pro Ala Pro Arg
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Pro Pro Thr Pro Ala Pro Thr Ile Ala Ser Gln Pro Leu Ser Leu Arg
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Pro Glu Ala Cys Arg Pro Ala Ala Gly Gly Ala Val His Thr Arg Gly
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Leu Asp Phe Ala Cys Asp Ile Tyr Ile Trp Ala Pro Leu Ala Gly Thr
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Cys Gly Val Leu Leu Leu Ser Leu Val Ile Thr Leu Tyr Cys Asn His
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His Ala Ala Arg Pro Ser Gln Phe Arg Val Ser Pro Leu Asp Arg Thr
20           25          30

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Trp Asn Leu Gly Glu Thr Val Glu Leu Lys Cys Gln Val Leu Leu Ser
35           40          45

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Asn Pro Thr Ser Gly Cys Ser Trp Leu Phe Gln Pro Arg Gly Ala Ala
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Ala Ser Pro Thr Phe Leu Leu Tyr Leu Ser Gln Asn Lys Pro Lys Ala
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Ala Glu Gly Leu Asp Thr Gln Arg Phe Ser Gly Lys Arg Leu Gly Asp
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Thr Phe Val Leu Thr Leu Ser Asp Phe Arg Arg Glu Asn Glu Gly Tyr
100 105 110

Tyr Phe Cys Ser Ala Leu Ser Asn Ser Ile Met Tyr Phe Ser His Phe
115 120 125

Val Pro Val Phe Leu Pro Ala Lys Pro Thr Thr Thr Pro Ala Pro Arg
130 135 140

Pro Pro Thr Pro Ala Pro Thr Ile Ala Ser Gln Pro Leu Ser Leu Arg
145 150 155 160

Pro Glu Ala Cys Arg Pro Ala Ala Gly Gly Ala Gly Asn Arg Arg Arg
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Val Cys Lys Cys Pro Arg Pro Val Val Lys Ser Gly Asp Lys Pro Ser
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Leu Ser Ala Arg Tyr Val
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| ctgcccattg | gagagaaaaa | acttaagtag | ataaggaaat | aagaaccact | cataattctt | 1860 |
| caccttagga | ataatctcct | gttaatatgg | tgtacattct | tcctgattat | tttctacaca | 1920 |
| tacatgtaaa | atatgtcttt | cttttttaaa | tagggttgta | ctatgctgtt | atgagtggct | 1980 |
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<212> PRT

<213> Pongo pygmaeus

<400> 5

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| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| His | Ala | Ala | Arg | Pro | Ser | Gln | Phe | Arg | Val | Ser | Pro | Leu | Asp | Arg | Thr |
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| | | | | | | | | | | | | | | | |
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| Trp | Asn | Leu | Gly | Glu | Thr | Val | Glu | Leu | Lys | Cys | Gln | Val | Leu | Leu | Ser |
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Asn Pro Thr Ser Gly Cys Ser Trp Leu Phe Gln Pro Arg Gly Ala Ala
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Ala Ser Pro Thr Phe Leu Leu Tyr Leu Ser Gln Asn Lys Pro Lys Ala
65 70 75 80

Ala Glu Gly Leu Asp Thr Gln Arg Phe Ser Gly Lys Arg Leu Gly Asp
85 90 95

Thr Phe Val Leu Thr Leu Ser Asp Phe Arg Arg Glu Asn Glu Gly Tyr
100 105 110

Tyr Phe Cys Ser Ala Leu Ser Asn Ser Ile Met Tyr Phe Ser His Phe
115 120 125

Val Pro Val Phe Leu Pro Val His Thr Arg Gly Leu Asp Phe Ala Cys
130 135 140

Asp Ile Tyr Ile Trp Ala Pro Leu Ala Gly Thr Cys Gly Val Leu Leu
145 150 155 160

Leu Ser Leu Val Ile Thr Leu Tyr Cys Asn His Arg Asn Arg Arg Arg
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Val Cys Lys Cys Pro Arg Pro Val Val Lys Ser Gly Gly Lys Pro Ser
180 185 190

Leu Ser Glu Arg Tyr Val
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<212> PRT
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Glu Leu Arg Ile Phe Pro Lys Lys Met Asp Ala Glu Leu Gly Gln Lys
35 40 45

Val Asp Leu Val Cys Glu Val Leu Gly Ser Val Ser Gln Gly Cys Ser
50 55 60

Trp Leu Phe Gln Asn Ser Ser Ser Lys Leu Pro Gln Pro Thr Phe Val
65 70 75 80

Val Tyr Met Ala Ser Ser His Asn Lys Ile Thr Trp Asp Glu Lys Leu
85 90 95

Asn Ser Ser Lys Leu Phe Ser Ala Met Arg Asp Thr Asn Asn Lys Tyr
100 105 110

Val Leu Thr Leu Asn Lys Phe Ser Lys Glu Asn Glu Gly Tyr Tyr Phe
115 120 125

Cys Ser Val Ile Ser Asn Ser Val Met Tyr Phe Ser Ser Val Val Pro
130 135 140

Val Leu Gln Lys Val Asn Ser Thr Thr Thr Lys Pro Val Leu Arg Thr
145 150 155 160

Pro Ser Pro Val His Pro Thr Gly Thr Ser Gln Pro Gln Arg Pro Glu
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Asp Cys Arg Pro Arg Gly Ser Val Lys Gly Thr Gly Leu Asp Phe Ala
180 185 190

Cys Asp Ile Tyr Ile Trp Ala Pro Leu Ala Gly Ile Cys Val Ala Leu
195 200 205

Leu Leu Ser Leu Ile Ile Thr Leu Ile Cys Tyr His Arg Ser Arg Lys
210 215 220

Arg Val Cys Lys Cys Pro Ser Ile Ala Cys Leu Cys Leu Lys Leu Gln
 225 230 235 240

Gly Ser Lys Trp Tyr Glu Ser Val Ile Cys Ser Ala Leu Ala Val Ser
 245 250 255

Ile Arg Cys Asn Lys Ser Lys Ser Gly Glu Leu Pro Leu Ala Val His
 260 265 270

Leu Asp Ile Arg Ala Pro Cys Lys Asn Trp Glu Ile Ala Gly Ser Leu
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Ala Val Val Glu Ser Asn
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 35 40 45

Lys Ile Thr Trp Asp Glu Lys Leu Asn Ser Ser Lys Leu Phe Ser Ala
 50 55 60

Met Arg Asp Thr Asn Asn Lys Tyr Val Leu Thr Leu Asn Lys Phe Ser
 65 70 75 80

Lys Glu Asn Glu Gly Tyr Tyr Phe Cys Ser Val Ile Ser Asn Ser Val
 85 90 95

Met Tyr Phe Ser Ser Val Val Pro Val Leu Gln Lys Val Asn Ser Thr
 100 105 110

Thr Thr Lys Pro Val Leu Arg Thr Pro Ser Pro Val His Pro Thr Gly
 115 120 125

Thr Ser Gln Pro Gln Arg Pro Glu Asp Cys Arg Pro Arg Gly Ser Val
 130 135 140

Lys Gly Thr Gly Leu Asp Phe Ala Cys Asp Ile Tyr Ile Trp Ala Pro
 145 150 155 160

Leu Ala Gly Ile Cys Val Ala Leu Leu Leu Ser Leu Ile Ile Thr Leu
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Ile Cys Tyr His Arg Ser Arg Lys Arg Val Cys Lys Cys Pro Arg Pro
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Leu Val Arg Gln Glu Gly Lys Pro Arg Pro Ser Glu Lys Ile Val
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<400> 11

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| | | | | | | | | | | | | | | | |
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Val Asp Leu Val Cys Glu Val Leu Gly Ser Val Ser Gln Gly Cys Ser
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Trp Leu Phe Gln Asn Ser Ser Ser Lys Leu Pro Gln Pro Thr Phe Val
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Val Tyr Met Ala Ser Ser His Asn Lys Ile Thr Trp Asp Glu Lys Leu
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Asn Ser Ser Lys Leu Phe Ser Ala Val Arg Asp Thr Asn Asn Lys Tyr
100 105 110

Val Leu Thr Leu Asn Lys Phe Ser Lys Glu Asn Glu Gly Tyr Tyr Phe
115 120 125

Cys Ser Val Ile Ser Asn Ser Val Met Tyr Phe Ser Ser Val Val Pro
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Val Leu Gln Lys Val Asn Ser Thr Thr Thr Lys Pro Val Leu Arg Thr
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Pro Ser Pro Val His Pro Thr Gly Thr Ser Gln Pro Gln Arg Pro Glu
165 170 175

Asp Cys Arg Pro Arg Gly Ser Val Lys Gly Thr Gly Leu Asp Phe Ala
180 185 190

Cys Asp Ile Tyr Ile Trp Ala Pro Leu Ala Gly Ile Cys Val Ala Pro
195 200 205

Leu Leu Ser Leu Ile Ile Thr Leu Ile Cys Tyr His Arg Ser Arg Lys
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| atggacgccg aacttggcca gaaggtggac ctggtatgtg aagtgttggg gtccgtttcg | 180 |
| caaggatgct cttggctctt ccagaactcc agctccaaac tccccagcc caccttcggt | 240 |
| gtctatatgg cttcatccca caacaagata acgtgggacg agaagctgaa ttcgtcgaaa | 300 |
| ctgttttctg ccgtgagggg cacgaataat aagtacgttc tcaccctgaa caagttcagc | 360 |
| aaggaaaacg aaggctacta tttctgctca gtcacagca actcgggtgat gtacttcagt | 420 |
| tctgtcgtgc cagtccttca gaaagtgaac tctactacta ccaagccagt gctgcgaact | 480 |
| ccctcacctg tgcaccctac cgggacatct cagccccaga gaccagaaga ttgtcggccc | 540 |
| cgtggctcag tgaagggggac cggattggac ttcgcctgtg atatttacat ctgggcaccc | 600 |
| ttggccggaa tctgcgtggc ccctctgctg tccttgatca tcactctcat ctgctaccac | 660 |
| aggagccgaa agcgtgtttg caaatgtccc aggccgctag tcagacagga aggcaagccc | 720 |
| agaccttcag agaaaattgt gtaa | 744 |

<210> 13
 <211> 236
 <212> PRT
 <213> Rattus norvegicus

<400> 13

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Ala | Ser | Arg | Val | Ile | Cys | Phe | Leu | Ser | Leu | Asn | Leu | Leu | Leu | Leu |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asp | Val | Ile | Thr | Arg | Leu | Gln | Val | Ser | Gly | Gln | Leu | Gln | Leu | Ser | Pro |
| | | | 20 | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Lys | Lys | Val | Asp | Ala | Glu | Ile | Gly | Gln | Glu | Val | Lys | Leu | Thr | Cys | Glu |
| | | 35 | | | | | 40 | | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Val | Leu | Arg | Asp | Thr | Ser | Gln | Gly | Cys | Ser | Trp | Leu | Phe | Arg | Asn | Ser |
| | 50 | | | | | 55 | | | | | 60 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Ser | Glu | Leu | Leu | Gln | Pro | Thr | Phe | Ile | Ile | Tyr | Val | Ser | Ser | Ser |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Ser | Lys | Leu | Asn | Asp | Ile | Leu | Asp | Pro | Asn | Leu | Phe | Ser | Ala | Arg |
| | | | | 85 | | | | | 90 | | | | | 95 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Lys | Glu | Asn | Asn | Lys | Tyr | Ile | Leu | Thr | Leu | Ser | Lys | Phe | Ser | Thr | Lys |
| | | | 100 | | | | | 105 | | | | | 110 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asn | Gln | Gly | Tyr | Tyr | Phe | Cys | Ser | Ile | Thr | Ser | Asn | Ser | Val | Met | Tyr |
| | | 115 | | | | | 120 | | | | | 125 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Phe | Ser | Pro | Leu | Val | Pro | Val | Phe | Gln | Lys | Val | Asn | Ser | Ile | Ile | Thr |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|

130

135

140

Lys Pro Val Thr Arg Ala Pro Thr Pro Val Pro Pro Pro Thr Gly Thr
145 150 155 160

Pro Arg Pro Leu Arg Pro Glu Ala Cys Arg Pro Gly Ala Ser Gly Ser
165 170 175

Val Glu Gly Met Gly Leu Gly Phe Ala Cys Asp Ile Tyr Ile Trp Ala
180 185 190

Pro Leu Ala Gly Ile Cys Ala Val Leu Leu Leu Ser Leu Val Ile Thr
195 200 205

Leu Ile Cys Cys His Arg Asn Arg Arg Arg Val Cys Lys Cys Pro Arg
210 215 220

Pro Leu Val Lys Pro Arg Pro Ser Glu Lys Phe Val
225 230 235

<210> 14
<211> 1010
<212> DNA
<213> Rattus norvegicus

<400> 14
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ggacagttac agttgtcacc aaagaaagtg gacgctgaaa ttggccagga ggtgaagcta 180
acatgcgaag tgctgcggga cacttcgcaa ggatgctctt ggctcttccg gaactccagc 240
tccgaactcc tccagcccac cttcatcatc tatgtatctt catcccggag caagctgaac 300
gatatactgg atccgaatct gttctctgcc cggaaggaaa acaacaaata catcctcacc 360
ctgagcaagt tcagcactaa aaaccaaggc tactatttct gctcaatcac cagcaactcg 420
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1010

<210> 15
<211> 237
<212> PRT
<213> Cavia porcellus

<400> 15

Met Ala Pro Arg Gly Ser Ala Trp Leu Leu Leu Leu Pro Val Ala Leu
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Leu Leu Asp Ala Ala Thr Ala Gln Gly Ala Ser Gln Phe Arg Met Ser
20 25 30

Pro Arg Glu Leu Val Ala Gln Val Gly Thr Lys Val Thr Leu Arg Cys
35 40 45

Glu Val Leu Val Pro Asn Ala Pro Ala Gly Cys Ser Trp Leu Phe Gln
50 55 60

Pro Arg His Asp Ala Lys Gly Pro Thr Phe Leu Leu Tyr His Ser Ala
65 70 75 80

Ser Gly Thr Lys Leu Ala Pro Gly Leu Glu Gln Lys Arg Phe Ser Pro
85 90 95

Ser Lys Ser Ser Asn Thr Tyr Thr Leu Thr Val Asn Ser Phe Gln Lys
100 105 110

Arg Asp Glu Gly Tyr Tyr Phe Cys Ser Val Ser Gly Asn Met Met Leu
115 120 125

Tyr Phe Ser Pro Phe Val Pro Val Phe Leu Pro Ala Pro Arg Thr Thr
130 135 140

Thr Pro Pro Pro Pro Pro Thr Thr Pro Thr Pro Ser Val Gln Pro Thr
145 150 155 160

Ser Val Arg Pro Glu Thr Cys Val Val Ser Lys Gly Ala Ala Gly Ala
165 170 175

Arg Trp Leu Asp Leu Ser Cys Asp Val Tyr Ile Trp Ala Pro Leu Ala
180 185 190

Ser Thr Cys Ala Ala Leu Leu Leu Ala Leu Val Ile Thr Ile Ile Cys
195 200 205

His Arg Arg Asn Arg Gln Arg Val Cys Lys Cys Pro Arg Pro Gln Ala
210 215 220

Arg Ser Gly Gly Lys Pro Ser Pro Ser Gly Lys Leu Val
 225 230 235

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 <211> 1330
 <212> DNA
 <213> *Cavia porcellus*

<400> 16
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 ctggctgctg ctgctgccgg tggccctgct gctcgacgcc gccacggccc aagggtgccag 180
 tcagttccga atgtcacccc gtgaactggc cgcgcaagtc ggcaccaaag tgaccctgcg 240
 ctgtgaggtg ctggcgccta acgcgccggc gggatgctcg tggctcttcc agccccgcca 300
 cgacgccaaa ggtcccacct tcctcctgta ccattcggcg tccgggacca agttggcccc 360
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 gaacagcttc cagaagcgag acgaaggcta ctacttctgc tcggtctccg gcaacatgat 480
 gctctacttc agcccgttcg ttcccgtctt cctgccagct cctcgacca cgacgcccc 540
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 tgtggtctct aagggcgcag cagggtgcgag gtggctggat ctctcctgtg atgtctacat 660
 ctgggcgccc ctggccagca catgcgcggc ctttctgctg gactgggtca tcacgatcat 720
 ctgccaccgc aggaacagac aacgcgtttg caaatgtcct agggcccaag ccagggtctgg 780
 aggcaaacc agcccttcag ggaagttagt ctaacaacat ggcgcccgag ctgtgcgaag 840
 ccactacatg actttatact gagatcattc cttggacagc aagtgtctct cttttggggt 900
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 cacagggtctg ttacctcaca caggggttag ggtagcaagc agggctctca ggtactggaa 1080
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 caaacacatg caactgcttt ttgaaccga gagcctaatt tatctgcaga gaatgcaagt 1260
 gctcctttgt cacttatatc ttgtccatga cctttaataa atgtgctgct tttccctcaa 1320
 aaaaaaaaaa 1330

<210> 17
 <211> 242
 <212> PRT
 <213> *Bos taurus*

<400> 17

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 Leu Asp Ala Ala Lys Val Leu Gly Ser Leu Ser Phe Arg Met Ser Pro
 20 25 30
 Thr Gln Lys Glu Thr Arg Leu Gly Glu Lys Val Glu Leu Gln Cys Glu
 35 40 45
 Leu Leu Gln Ser Gly Met Ala Thr Gly Cys Ser Trp Leu Arg His Ile
 50 55 60
 Pro Gly Asp Asp Pro Arg Pro Thr Phe Leu Met Tyr Leu Ser Ala Gln
 65 70 75 80
 Arg Val Lys Leu Ala Glu Gly Leu Asp Pro Arg His Ile Ser Gly Ala
 85 90 95
 Lys Val Ser Gly Thr Lys Phe Gln Leu Thr Leu Ser Ser Phe Leu Gln
 100 105 110
 Glu Asp Gln Gly Tyr Tyr Phe Cys Ser Val Val Ser Asn Ser Ile Leu
 115 120 125
 Tyr Phe Ser Asn Phe Val Pro Val Phe Leu Pro Ala Lys Pro Ala Thr
 130 135 140
 Thr Pro Ala Met Arg Pro Ser Ser Ala Ala Pro Thr Ser Ala Pro Gln
 145 150 155 160
 Thr Arg Ser Val Ser Pro Arg Ser Glu Val Cys Arg Thr Ser Ala Gly
 165 170 175
 Ser Ala Val Asp Thr Ser Arg Leu Asp Phe Ala Cys Asn Ile Tyr Ile
 180 185 190
 Trp Ala Pro Leu Val Gly Thr Cys Gly Val Leu Leu Leu Ser Leu Val
 195 200 205
 Ile Thr Gly Ile Cys Tyr Arg Arg Asn Arg Arg Arg Val Cys Lys Cys
 210 215 220
 Pro Arg Pro Val Val Arg Gln Gly Gly Lys Pro Asn Leu Ser Glu Lys
 225 230 235 240
 Tyr Val

<211> 2001
 <212> DNA
 <213> Bos taurus

<400> 18

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| gagaccagac tgggcgagaa ggtggagctg caatgcgagt tgctgcagtc cggcatggcg | 180 |
| acaggggtgct cctggctccg ccacataccc ggggacgacc ccagacccac cttcctaata | 240 |
| tacctctccg cccaacgggt caagctagcc gagggactgg accccagaca catttccggc | 300 |
| gccaagggtct ccggcaccaa attccagctc accctgagca gcttcctcca ggaggaccaa | 360 |
| ggctactatt ttgtctcggg cgtgagcaac tcgatactgt acttcagtaa cttcgtgcct | 420 |
| gtcttcttgc cagcgaagcc ggccaccacg ccggcgatgc ggccatccag cgcggcgccc | 480 |
| accagcgcgc cgagactag gtcggtctct ccgcgatcag aggtgtgccg gacctcggcg | 540 |
| ggcagcgcag tggacacgag ccggctggac ttcgcctgca atatctacat ctgggctccc | 600 |
| ttggctcggga cctgcggcgt ctttctcctg tcattggtca tcacaggcat ctgctaccgc | 660 |
| cggaaccgaa gacgtgtctg caaatgtccc aggcctgtgg tccgacaagg aggcaagccc | 720 |
| aacctttcag agaaatatgt ctaacatggc gatgggcccc gtgtgacagc cactacaaga | 780 |
| cttcgcactg agaactctcc tgagatcctt cctttttgat ttctccctgc ttccttcctt | 840 |
| ctcgttatta ttatttttca tgggggtggg gtgggaagag ttactttttc tttattattt | 900 |
| actttgatac aaaacaagac actcgtgtct aaggcatacc acaaggggta tcatgctggt | 960 |
| gtgctcccat actcgggtag agggcgggcg ggccagagct accgcaagct ctattctcag | 1020 |
| aacctggctg tgagaactgg tgggggcctc ggcaaccact cagccccaac ttctcctcca | 1080 |
| cccattttac aaaagaggac gctgaggccc agagatgggg aacagctgga tcagagtccc | 1140 |
| agcagggtc cacacaactg agatctttct tctggaggcc tctgtctcag cgtggggagc | 1200 |
| tggatctcaa gcctcagaga actagttatt tctgaagcat ctgtgataga cccatgactg | 1260 |
| cacccagagc ctcgatgagg taatgaaata ggacaagaaa acttgacaga gttctgtgat | 1320 |
| actgctgaac aggatcagat tatttttttt ataatacagc atgaaatgat acagataata | 1380 |
| ggaattcttc caatgaagtg gaaggagtga actgaatgat ggaaaatgag caacctgacc | 1440 |
| tctgaagaaa atctctggga aatcccagcc tggagatggt tctcccagcc cttgtattgc | 1500 |
| agaaggaccc tcaaagagga gaggccaccc tctgcaagca tgatttgagc gttaggaaag | 1560 |
| ttgaatggag ttcaagtctc tctaaacatt gagattccgt attcaaacat gctcctgggt | 1620 |
| tatcgggtgag tttttatagt ttgtaaaggg agaattgtga ccgagcagct ggcacaggcc | 1680 |
| ctggcacccc aggctagcag ctgagggaat gtgcagacac tggtgaggag gctacgagcc | 1740 |
| cagctgcagc cctacaaggc atttccttcc ttactgtggt ctgcaaaaaa tgcattgctca | 1800 |

ctgggagaaa aaatgtagct aaggtagtaa gaatcatccg taattcttta cctcagggat 1860
aatccattgt taatattatg ggctacattc ttcctgatta ttttctgtgc cctacatata 1920
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<210> 19
<211> 236
<212> PRT
<213> Sus scrofa

<400> 19

Met Ala Ser Leu Val Thr Ala Leu Leu Leu Pro Leu Val Leu Gln Leu
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His Pro Ala Lys Val Leu Gly Ser Ser Leu Phe Arg Thr Ser Pro Glu
20 25 30

Met Val Gln Ala Ser Leu Gly Glu Thr Val Lys Leu Arg Cys Glu Val
35 40 45

Met His Ser Asn Thr Leu Thr Ser Cys Ser Trp Leu Tyr Gln Lys Pro
50 55 60

Gly Ala Ala Ser Lys Pro Ile Phe Leu Met Tyr Leu Ser Lys Thr Arg
65 70 75 80

Asn Lys Thr Ala Glu Gly Leu Asp Thr Arg Tyr Ile Ser Gly Tyr Lys
85 90 95

Ala Asn Asp Asn Phe Tyr Leu Ile Leu His Arg Phe Arg Glu Glu Asp
100 105 110

Gln Gly Tyr Tyr Phe Cys Ser Phe Leu Ser Asn Ser Val Leu Tyr Phe
115 120 125

Ser Asn Phe Met Ser Val Phe Leu Pro Ala Lys Pro Thr Lys Thr Pro
130 135 140

Thr Thr Pro Pro Pro Lys Arg Thr Pro Thr Lys Ala Ser His Ala Val
145 150 155 160

Ser Val Ala Pro Glu Val Cys Arg Pro Ser Gly Asn Ala Asp Pro Arg
165 170 175

Lys Leu Asp Leu Ala Cys Asp Leu Tyr Asn Trp Ala Pro Leu Val Gly
180 185 190

Thr Ser Gly Ile Leu Leu Leu Ser Leu Val Ile Thr Ile Ile Cys His

195

200

205

Arg Arg Asn Arg Arg Arg Val Cys Lys Cys Pro Arg Pro Val Val Arg
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Gln Gly Gly Lys Ala Ser Pro Ser Glu Arg Phe Ile
 225 230 235

<210> 20
 <211> 2179
 <212> DNA
 <213> Sus scrofa

<400> 20
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 ccaggcttcg agcttccagc ggagccgcgc gcgggggagc gcgccatggc ctcgctgggtg 180
 accgctctgc tcctgccgct ggtcctgcag ctccatcccc ccaaggctcct cgggtccagc 240
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| | |
|--|------|
| tagactctgc actgtgcccc gagccccggg gaggcaatgc agtaagtcaa ggggacgtga | 1500 |
| cagaggtcta cgggtgcagtt gaacaggatc agatatattt tttttaataa tccagcatga | 1560 |
| agttatatag ataacaggaa ttcctcaaat agagtggaag ggctgaaactg aatcctggaa | 1620 |
| agtgaacaac acgacctcta aaggaaatcc aatgcaaaaa atctctaagt ggagacacag | 1680 |
| tggctctccc aggggaccca tgaaagaggg gaagccgccc tttgcaaata tgatttgagc | 1740 |
| atcgcgaaaag tcgaacggag gtcggccctc tctaaatgtg agatctgata tttgaacgtg | 1800 |
| ctcctcggat cattgatggg tttttttggt ttgtaaacac agaattatga ccgagtagct | 1860 |
| ggcctcccct ggaccagcag ctgtggatat ggggcagact ctgatgagga ggctaggagc | 1920 |
| ccagactgct gccctctacg cgcatttcct ctcttaacca tgttgtacaa gaaatgcgtg | 1980 |
| ctcgctggaa gaaaaaacta aataataaga gtcacccata attctttact tctggtataa | 2040 |
| ctcattgtta atattatggt gtacattctt cctgattatt ttctatgcac gtatataaaa | 2100 |
| tgtatacttt ttaaaaatgg aattgtacta tgcttttaga agtggtttta ataaacattt | 2160 |
| ctgctatgaa aaaaaaaaaa | 2179 |

<210> 21
 <211> 239
 <212> PRT
 <213> Felis catus

<400> 21

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Ala | Ser | Pro | Val | Thr | Ala | Gln | Leu | Leu | Pro | Leu | Ala | Leu | Leu | Leu |
| 1 | | | | 5 | | | | 10 | | | | | 15 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| His | Ala | Ala | Ala | Ala | Ala | Gly | Pro | Ser | Pro | Phe | Arg | Leu | Ser | Pro | Val |
| | | | 20 | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Val | Glu | Gly | Arg | Leu | Gly | Gln | Arg | Val | Glu | Leu | Gln | Cys | Glu | Val |
| | | 35 | | | | 40 | | | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Leu | Ser | Ser | Ala | Ala | Pro | Gly | Cys | Thr | Trp | Leu | Phe | Gln | Lys | Asn |
| | 50 | | | | | 55 | | | | | 60 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Glu | Pro | Ala | Ala | Arg | Pro | Ile | Phe | Leu | Ala | Tyr | Leu | Ser | Arg | Ser | Arg |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Thr | Lys | Leu | Ala | Glu | Glu | Leu | Asp | Pro | Lys | Gln | Ile | Ser | Gly | Gln | Arg |
| | | | 85 | | | | | | 90 | | | | | 95 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ile | Gln | Asp | Thr | Leu | Tyr | Ser | Leu | Thr | Leu | His | Arg | Phe | Arg | Lys | Glu |
| | | | 100 | | | | | 105 | | | | | 110 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Glu | Glu | Gly | Tyr | Tyr | Phe | Cys | Ser | Val | Val | Ser | Asn | Ser | Val | Leu | Tyr |
| | | 115 | | | | | 120 | | | | | 125 | | | |

Phe Ser Ala Phe Val Pro Val Phe Leu Pro Val Lys Pro Thr Thr Thr
130 135 140

Pro Ala Pro Arg Pro Pro Thr Gln Ala Pro Ile Thr Thr Ser Gln Arg
145 150 155 160

Val Ser Leu Arg Pro Gly Thr Cys Gln Pro Ser Ala Gly Ser Thr Val
165 170 175

Glu Ala Ser Gly Leu Asp Leu Ser Cys Asp Ile Tyr Ile Trp Ala Pro
180 185 190

Leu Ala Gly Thr Cys Ala Phe Leu Leu Leu Ser Leu Val Ile Thr Val
195 200 205

Ile Cys Asn His Arg Asn Arg Arg Arg Val Cys Lys Cys Pro Arg Pro
210 215 220

Val Val Arg Ala Gly Gly Lys Pro Ser Pro Ser Glu Arg Tyr Val
225 230 235

<210> 22
<211> 785
<212> DNA
<213> Felis catus

<400> 22
atggcctctc cggtgactgc ccagctcctg ccgctggcct tgctgcttca tgccgccgca 60
gccgccgggc cgagcccgtt ccgcttatcg cccgtgaggg tggagggcag gctcggccag 120
cgggtgggagc tgcagtgcga ggtgtgctg tccagcgcg cgccgggctg cacctggctc 180
ttccagaaga acgaacctgc cgcccccccc atcttcctgg cgtacctctc cagaagccgg 240
accaagttag ccgaggagct ggaccccaaa cagatctcgg gccagaggat tcaggacacc 300
ctctacagtc tcacctgca cagattccgc aaggaggaag aaggctacta tttctgctcg 360
gtcgtgagca actccgttct gtacttcagc gccttcgtcc cggcttctcct gccagtcaag 420
cccaccacta cgcccgcgcc gcgaccgccc acgcaggcgc ccatcaccac gtcgcagcgg 480
gtgtctctgc gcccggggac ctgccagcct tcagcgggca gcacagtgga agcaagtggg 540
ctggatttgt cctgtgacat ctacatctgg gcacccttgg ctgggacctg cgccttcctt 600
ctcctgtcgc tggatcacac cgatcatctgc aaccacagga accgaagacg tgtttgcaaa 660
tgtccgaggc ccgtggtcag agcaggaggc aagcctagcc cgtcagagag atacgtctaa 720
catggagatg ggcccatgc accagccact acaagaccaa ataaaactct ctttatgagg 780
acagt 785

<210> 23

<211> 235
<212> PRT
<213> Sigmodon hispidus

<400> 23

Met Ala Pro Arg Val Thr Arg Phe Leu Cys Leu Thr Leu Leu Leu Glu
1 5 10 15

Phe Ile Ala Glu Leu Gly Gly Ser Lys Asp Phe Glu Met Ser Pro Lys
20 25 30

Lys Val Val Ala His Leu Gly Lys Glu Val Arg Leu Thr Cys Glu Val
35 40 45

Trp Val Ser Thr Ser Gln Gly Cys Ser Trp Leu Phe Leu Glu His Gly
50 55 60

Ser Gly Val Lys Pro Thr Phe Leu Ile Tyr Leu Ser Gly Ser Arg Asn
65 70 75 80

Glu Arg Asn Asn Lys Ile Pro Ser Thr Lys Leu Ser Gly Lys Lys Glu
85 90 95

Asp Lys Lys Tyr Thr Leu Thr Leu Asn Asn Phe Ala Lys Glu Asp Glu
100 105 110

Gly Tyr Tyr Phe Cys Ser Val Thr Ser Asn Ser Val Val Tyr Phe Ser
115 120 125

Pro Leu Val Ser Val Phe Leu Pro Glu Lys Pro Thr Thr Pro Val Pro
130 135 140

Lys Pro Pro Thr Ser Val Pro Thr Thr Ala Ile Ser Arg Ser Leu Arg
145 150 155 160

Pro Glu Ala Cys Arg Pro Gly Ala Gly Thr Ser Val Glu Lys Lys Gly
165 170 175

Trp Asp Phe Asp Cys Asp Ile Ile Ile Leu Ala Pro Leu Ala Gly Leu
180 185 190

Cys Gly Val Leu Leu Leu Ser Leu Val Thr Thr Leu Ile Cys Cys His
195 200 205

Arg Asn Arg Lys Arg Val Cys Lys Cys Pro Arg Pro Val Val Arg Gln
210 215 220

Gly Gly Lys Pro Ser Pro Ser Gly Lys Leu Val
225 230 235

<210> 24
 <211> 1229
 <212> DNA
 <213> Sigmodon hispidus

<400> 24
 ctccctgcttg acctaagctg ctggtggaag cactgccatg gccccccggg tgacccgctt 60
 tctgtgcctg accctgctgc tggaatttat cgctgagctc ggaggctcga aagatttcga 120
 aatgtctcct aagaagggtg tgcgccacct tggcaaggag gtgaggctaa catgcgaagt 180
 gtgggtgtct acttcgcaag gatgctcttg gctcttcctg gagcatggct ccggagttaa 240
 acccactttc ctcatctatc tctctgggag ccgcaacgaa cggaataaca aaataccttc 300
 aactaagcta tctgggaaga aggaagacaa aaagtacacc ctaccctga ataattttgc 360
 taaggaagac gaaggctact atttctgctc tgtcacaagc aactcgggtg tgtacttcag 420
 tcctctcgtg tcggtctttc tgccagagaa acctaccaca ccagtgccga aaccaccac 480
 atcagtgcc actacggcga tatctcggtc cctgcgacca gaagcttgcc gacctggagc 540
 cggcacctca gtggagaaga agggatggga cttcgactgt gatatcatca ttttggcacc 600
 cttagctgga ctctgtgggg tccttctgct gtctctggtc accacactca tctgctgcca 660
 caggaacaga aaacgagtct gcaaagtgtc caggcccgtg gtcagacaag gaggcaagcc 720
 cagcccttca gggaaactcg tgtaagatgg cgccaagaaa ctacaactac tacttcagag 780
 acctcttcat ctagagctcc agctctcctt cttcaatttt tctcaccttc ctataatattg 840
 ttctttgtat tatttttagtg ggggtaggac aggggttgaa ccatttcctt tctttatgaa 900
 ttcactttga cacaaaacaa gaccacataa tgtccacggg ataccataag ggcaggagct 960
 gttgctgcgt acatagcatg tgggggaagt acagaacagc tgtctgggtt ctcaggatca 1020
 gtggatgatc agcaccact tgatgatcta aatgccctgt ctgcccatta tatagaagag 1080
 gttgaaggct agaaatgggg tgggcaggat ctgtgcacca ggagagaacc caagctgacg 1140
 aaatcctcac tggatggctc agggaaacttg cctctatatc ctgagttctc tttattcagg 1200
 cctgtgcctg gtagtgtgta ggctgagta 1229

<210> 25
 <211> 235
 <212> PRT
 <213> Saimiri sciureus

<400> 25

Met Ala Ser Pro Val Thr Ala Leu Leu Leu Pro Leu Ala Leu Leu Leu
 1 5 10 15

His Ala Ala Arg Pro Ser Arg Phe Arg Val Ser Pro Leu Asp Arg Thr
 20 25 30

Trp Asn Leu Gly Asp Lys Val Glu Leu Lys Cys Glu Val Leu Leu Ser
 35 40 45

Asn Pro Ser Ser Gly Cys Ser Trp Leu Phe Gln Lys Arg Gly Ala Ala
 50 55 60

Ala Ser Pro Thr Phe Leu Leu Tyr Ile Ser Gln Thr Lys Pro Lys Val
 65 70 75 80

Ala Asp Gly Leu Asp Ala Gln Arg Phe Ser Gly Lys Lys Met Gly Asp
 85 90 95

Ser Phe Ile Leu Thr Leu Arg Asp Phe Arg Glu Glu Asp Gln Gly Phe
 100 105 110

Tyr Phe Cys Ser Ala Leu Ser Asn Ser Ile Met Tyr Phe Ser Pro Phe
 115 120 125

Val Pro Val Phe Leu Pro Ala Lys Pro Thr Thr Thr Pro Ala Pro Arg
 130 135 140

Pro Pro Thr Pro Glu Pro Thr Thr Ala Ser Gln Pro Leu Ser Leu Arg
 145 150 155 160

Pro Gln Ala Cys Arg Pro Pro Ala Gly Gly Ala Val Asp Thr Arg Gly
 165 170 175

Leu Asp Phe Ala Cys Asp Ile Tyr Ile Trp Val Pro Leu Ala Gly Thr
 180 185 190

Cys Gly Val Leu Leu Leu Ser Leu Val Ile Thr Val Tyr Cys Asn His
 195 200 205

Arg Asn Arg Arg Arg Val Cys Lys Cys Pro Arg Pro Ala Val Lys Ser
 210 215 220

Gly Gly Lys Pro Ser Pro Ser Glu Arg Tyr Val
 225 230 235

<210> 26
 <211> 708
 <212> DNA
 <213> Saimiri sciureus

<400> 26
 atggcctctc ccgtgaccgc cttgctcctg ccgctggccc tgctgctcca cgctgccagg 60
 ccgagccggt tccgggtgtc gccgctggat cggacctgga acttgggcga caaggtggag 120
 ctgaagtgcg aggtgctgct gtccaacccg tcctcgggct gctcgtggct cttccagaag 180
 cgcggcgctg ccgccagccc caccctcctc ctgtacatct cccaaaccaa gcccaagggtg 240

gccgatgggc tggacgcca gcgcttctcc ggcaagaaga tgggggacag cttcattctc 300
 accctgcgcg acttccgcga ggaggaccag ggcttctatt tctgctcggc cctgagcaac 360
 tccatcatgt acttcagccc cttcgtgccg gtcttcctgc cagcgaagcc caccacgacg 420
 ccagcgccgc gaccacccac accggagccc accaccgcgt cgcagcccct gtccctgcgt 480
 ccacaggctt gccggccccc ggcggggggc gcagtggaca cgaggggggct ggacttcgcc 540
 tgtgatattc acatctgggt gcccttggcc gggacctgcg gggtccttct cctgtcactg 600
 gtcacaccg tttattgcaa tcacaggaac cgacgacgtg tttgcaaatg tccccggcct 660
 gcggtcaagt ctggaggcaa gccagccct tcggagagat acgtctaa 708

<210> 27
 <211> 235
 <212> PRT
 <213> Homo sapiens

<400> 27

Met Ala Leu Pro Val Thr Ala Leu Leu Leu Pro Leu Ala Leu Leu Leu
 1 5 10 15

His Ala Ala Arg Pro Ser Gln Phe Arg Val Ser Pro Leu Asp Arg Thr
 20 25 30

Trp Asn Leu Gly Glu Thr Val Glu Leu Lys Cys Gln Val Leu Leu Ser
 35 40 45

Asn Pro Thr Ser Gly Cys Ser Trp Leu Phe Gln Pro Arg Gly Ala Ala
 50 55 60

Ala Ser Pro Thr Phe Leu Leu Tyr Leu Ser Gln Asn Lys Pro Lys Ala
 65 70 75 80

Ala Glu Gly Leu Asp Thr Gln Arg Phe Ser Gly Lys Arg Leu Gly Asp
 85 90 95

Thr Phe Val Leu Thr Leu Ser Asp Phe Arg Arg Glu Asn Glu Gly Tyr
 100 105 110

Tyr Phe Cys Ser Ala Leu Ser Asn Ser Ile Met Tyr Phe Ser His Phe
 115 120 125

Val Pro Val Phe Leu Pro Ala Lys Pro Thr Thr Thr Pro Ala Pro Arg
 130 135 140

Pro Pro Thr Pro Ala Pro Thr Ile Ala Ser Gln Pro Leu Ser Leu Arg
 145 150 155 160

Pro Glu Ala Cys Arg Pro Ala Ala Gly Gly Ala Val His Thr Arg Gly
165 170 175

Leu Asp Phe Ala Cys Asp Ile Tyr Ile Trp Ala Pro Leu Ala Gly Thr
180 185 190

Cys Gly Val Leu Leu Leu Ser Leu Val Ile Thr Leu Tyr Cys Asn His
195 200 205

Arg Asn Arg Arg Arg Val Cys Lys Cys Pro Arg Pro Val Val Lys Ser
210 215 220

Gly Asp Lys Pro Ser Leu Ser Ala Arg Tyr Val
225 230 235

<210> 28
<211> 708
<212> DNA
<213> Homo sapiens

<400> 28
atggccttac cagtgaccgc cttgctcctg ccgctggcct tgctgctcca cgccgccagg 60
ccgagccagt tccgggtgtc gccgctggat cggacctgga acctggggcga gacagtggag 120
ctgaagtgcc aggtgctgct gtccaacccg acgtcgggct gctcgtggct cttccagccg 180
cgcggcgccc cgccaggtcc caccttcctc ctatacctct cccaaaacaa gcccaaggcg 240
gccgaggggc tggacacca gcggttctcg ggcaagaggt tgggggacac cttcgtcctc 300
accctgagcg acttccgccg agagaacgag ggctactatt tctgctcggc cctgagcaac 360
tccatcatgt acttcagcca cttcgtgccg gtcttcctgc cagcgaagcc caccacgacg 420
ccagcggcgc gaccaccaac accggcgccc accatcgcg tgcagcccct gtccctgcgc 480
ccagaggcgt gccggccagc ggcggggggc gcagtgcaca cgaggggggct ggacttcgcc 540
tgtgatattc acatctgggc gcccttggcc gggacttggt gggtccttct cctgtcactg 600
gttatcacc tttactgcaa ccacaggaac cgaagacgtg tttgcaaattg tccccggcct 660
gtggtcaaatt cgggagacaa gcccgacctt tcggcgagat acgtctaa 708

<210> 29
<211> 310
<212> PRT
<213> Mus musculus

<400> 29

Met Ala Ser Pro Leu Thr Arg Phe Leu Ser Leu Asn Leu Leu Leu Leu
1 5 10 15

Gly Glu Ser Ile Ile Leu Gly Ser Gly Glu Ala Lys Pro Gly Ala Pro
20 25 30

Glu Leu Arg Ile Phe Pro Lys Lys Met Asp Ala Glu Leu Gly Gly Lys
35 40 45

Val Asp Leu Val Cys Glu Val Leu Gly Ser Val Ser Gly Gly Cys Ser
50 55 60

Trp Leu Phe Gly Asn Ser Ser Ser Lys Leu Pro Gly Pro Thr Phe Val
65 70 75 80

Val Tyr Met Ala Ser Ser His Asn Lys Ile Thr Trp Asp Glu Lys Leu
85 90 95

Asn Ser Ser Lys Leu Phe Ser Ala Met Arg Asp Thr Asn Asn Lys Tyr
100 105 110

Val Leu Thr Leu Asn Lys Phe Ser Lys Glu Asn Glu Gly Tyr Tyr Phe
115 120 125

Cys Ser Val Ile Ser Asn Ser Val Met Tyr Phe Ser Ser Val Val Pro
130 135 140

Val Leu Gly Lys Val Asn Ser Thr Thr Thr Lys Pro Val Leu Arg Thr
145 150 155 160

Pro Ser Pro Val His Pro Thr Gly Thr Ser Gly Pro Gly Arg Pro Glu
165 170 175

Asp Cys Arg Pro Arg Gly Ser Val Lys Gly Thr Gly Leu Asp Phe Ala
180 185 190

Cys Asp Ile Tyr Ile Trp Ala Pro Leu Ala Gly Ile Cys Val Ala Leu
195 200 205

Leu Leu Ser Leu Ile Ile Thr Leu Ile Cys Tyr His Arg Ser Arg Lys
210 215 220

Arg Val Cys Lys Cys Pro Ser Ile Ala Cys Leu Cys Leu Lys Leu Gly
225 230 235 240

Gly Ser Lys Trp Tyr Glu Ser Val Ile Cys Ser Ala Leu Ala Val Ser
245 250 255

Ile Arg Cys Asn Lys Ser Lys Ser Gly Glu Leu Pro Leu Ala Val His
260 265 270

Leu Asp Ile Arg Ala Pro Cys Lys Asn Trp Glu Ile Ala Gly Ser Leu
275 280 285

Val Glu Arg Tyr Gly Lys Ser Gly Lys His Ser Pro Leu Ser Leu Lys
 290 295 300

Ala Val Val Glu Ser Asn
 305 310

<210> 30
 <211> 933
 <212> DNA
 <213> Mus musculus

<400> 30
 atggcctcac cggtgacccg ctttctgtcg ctgaacctgc tgctgctggg tgagtcgatt 60
 atcctgggga gtggagaagc taagccacag gcacccgaac tccgaatcct tccaaagaaa 120
 atggacgccg aacttgggtca gaagggtggac ctggtatgtg aagtgttggg gtccgtttcg 180
 caaggatgct cttggctctt ccagaactcc agctccaaac tccccagcc caccttcggt 240
 gtctatatgg cttcatccca caacaagata acgtgggacg agaagctgaa ttcgtcgaaa 300
 ctgttttctg ccatgagggg cacgaataat aagtacgttc tcacctgaa caagttcagc 360
 aaggaaaacg aaggctacta tttctgtcga gtcacagca actcgggtgat gtacttcagt 420
 tctgtcgtgc cagtccttca gaaagtgaac tctactacta ccaagccagt gctgcgaact 480
 ccctcacctg tgcaccctac cgggacatct cagccccaga gaccagaaga ttgtcggccc 540
 cgtggctcag tgaaggggac cggattggac ttcgcctgtg atatttacat ctgggcaccc 600
 ttggccggaa tctgcgtggc ctttctgtcg tccttgatca tctctctcat ctgctaccac 660
 aggagccgaa agcgtgtttg caaatgtccc agtatagcat gcttgtgcct caaactgcaa 720
 ggaagcaagt ggtatgaatc tgtgatctgc tcagctctgg ctgtgagcat cagatgtaac 780
 aaatcaaagt caggagaact gccttttagcg gtgcacctgg acatcagagc cccttgtaag 840
 aactgggaaa ttgctggcag tctagtggag cggtagcgta aatctggaaa acactcccct 900
 ctgtcactga aggctgtagt agaatccaat taa 933

<210> 31
 <211> 247
 <212> PRT
 <213> Mus musculus

<400> 31

Met Ala Ser Pro Leu Thr Arg Phe Leu Ser Leu Asn Leu Leu Leu Met
 1 5 10 15

Gly Glu Ser Ile Ile Leu Gly Ser Gly Glu Ala Lys Pro Gln Ala Pro
 20 25 30

Glu Leu Arg Ile Phe Pro Lys Lys Met Asp Ala Glu Leu Gly Gln Lys
 35 40 45

Val Asp Leu Val Cys Glu Val Leu Gly Ser Val Ser Gln Gly Cys Ser
50 55 60

Trp Leu Phe Gln Asn Ser Ser Ser Lys Leu Pro Gln Pro Thr Phe Val
65 70 75 80

Val Tyr Met Ala Ser Ser His Asn Lys Ile Thr Trp Asp Glu Lys Leu
85 90 95

Asn Ser Ser Lys Leu Phe Ser Ala Val Arg Asp Thr Asn Asn Lys Tyr
100 105 110

Val Leu Thr Leu Asn Lys Phe Ser Lys Glu Asn Glu Gly Tyr Tyr Phe
115 120 125

Cys Ser Val Ile Ser Asn Ser Val Met Tyr Phe Ser Ser Val Val Pro
130 135 140

Val Leu Gln Lys Val Asn Ser Thr Thr Thr Lys Pro Val Leu Arg Thr
145 150 155 160

Pro Ser Pro Val His Pro Thr Gly Thr Ser Gln Pro Gln Arg Pro Glu
165 170 175

Asp Cys Arg Pro Arg Gly Ser Val Lys Gly Thr Gly Leu Asp Phe Ala
180 185 190

Cys Asp Ile Tyr Ile Trp Ala Pro Leu Ala Gly Ile Cys Val Ala Pro
195 200 205

Leu Leu Ser Leu Ile Ile Thr Leu Ile Cys Tyr His Arg Ser Arg Lys
210 215 220

Arg Val Cys Lys Cys Pro Arg Pro Leu Val Arg Gln Glu Gly Lys Pro
225 230 235 240

Arg Pro Ser Glu Lys Ile Val
245

<210> 32
<211> 197
<212> PRT
<213> Homo sapiens

<400> 32

Met Ala Leu Pro Val Thr Ala Leu Leu Leu Pro Leu Ala Leu Leu Leu
1 5 10 15

His Ala Ala Arg Pro Ser Gln Phe Arg Val Ser Pro Leu Asp Arg Thr

20

25

30

Trp Asn Leu Gly Trp Thr Val Glu Leu Lys Cys Gln Val Leu Leu Ser
 35 40 45

Asn Pro Thr Ser Gly Cys Ser Trp Leu Phe Gln Pro Arg Gly Ala Ala
 50 55 60

Ala Ser Pro Thr Phe Leu Leu Tyr Leu Ser Gln Asn Lys Pro Lys Ala
 65 70 75 80

Ala Glu Gly Leu Asp Thr Gln Arg Phe Ser Gly Lys Arg Leu Gly Asp
 85 90 95

Thr Phe Val Leu Thr Leu Ser Asp Phe Arg Arg Glu Asn Glu Gly Tyr
 100 105 110

Tyr Phe Cys Ser Ala Leu Ser Asn Ser Ile Met Tyr Phe Ser His Phe
 115 120 125

Val Pro Val Phe Leu Pro Ala Lys Pro Thr Thr Thr Pro Ala Pro Arg
 130 135 140

Pro Pro Thr Pro Ala Pro Thr Ile Ala Ser Gln Pro Leu Ser Leu Arg
 145 150 155 160

Pro Glu Ala Cys Arg Pro Ala Ala Gly Gly Ala Gly Asn Arg Arg Arg
 165 170 175

Val Cys Lys Cys Pro Arg Pro Val Val Lys Ser Gly Asp Lys Pro Ser
 180 185 190

Leu Ala Arg Tyr Val
 195